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AUTHOR: (8) Namitokov, K. K.

TITLE: (6) Transfer phenomena in low-voltage pulses discharges

PERIODICAL: (15) Ukrayins'kyy fizichnyy zhurnal, v. 7, # 10, 1962.

pp. 1141-1143

TEXT: Effects of the molecular properties of electrode surfaces, interelectrode distances and of surface changes following gas discharge are discussed. For instance, if the surface is covered by a thin layer of water, the transfer changes substantially. Interelectrode distance also affects transfer. There is an optimum distance for which the transfer effect is strongest (e.g. about 10μ in air discharge of a $1200 \mu F$ condenser at 200 V). Increase of the interelectrode distance decreases the total erosion of both cathode and anode. Breakdown of interelectrode gap occurs at distances about 10 - 100 times smaller if the electrodes have already been treated. This explains the fact that transfer ceases in spark treatment after reaching comparatively small coating thicknesses.

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Transfer phenomena in ...

There is 1 table.

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